

REMARKS

The Examiner is thanked for the Official Action dated April 15, 2008. This amendment and request for reconsideration is intended to be fully responsive thereto.

Applicant has amended the Abstract to address the issues raised by the examiner at page 2 of the Official Action.

Claims 10-14 were rejected under 35 U.S.C. § 112, second paragraph, for indefinite claim language. Applicant has amended claims 10-14 to correct the dependency of these claims.

Claims 15-20 have also been cancelled.

Claims 1, 2, 3, 6-10, 13-15 and 17-19 were rejected under 35 USC 103(a) as being unpatentable over Ahmavaara (US 7,242,933) in view of Sarkinen et al. (US Pub. 2003/0119533). Claims 4, 5, 11, 12, 16 and 20 were rejected under 35 USC 103(a) as being unpatentable over Ahmavaara '933 in view of Sarkinen et al. '533 and Laiho et al. (US 7,127,251). These rejections are respectfully traversed in view of the above amendment and the following remarks.

The present invention is directed to method and for UE mobility management in a mobile communication system and particularly relates to a method for cell update and user registration area URA update when there is no Iur signaling link between a serving RNC and a destination RNC.

As stated in the description of the present invention "the cell update process and the URA update process both need an RNSAP signaling of the Iur interface control plane. However, in the practical UTRAN networking, there may exist no Iur link between some topologic structure; in addition, even if the Iur physical link exists, the RNSAP signaling link of the Iur interface control plane are caused to be invalid in some abnormal situations. Thus, when the UE moves to a

resident cell, and there does not exist available Iur signaling between the RNC to which the cell belongs and the SRNC of the UE, the cell update process or the URA update process will fail” (line 14, page 6 through line 2, page 7 of the instant application). That is, in the prior art, no matter which method is used, the cell update process and the URA update process both at least need to use the signaling link of the Iur interface between the SRNC and the destination RNC. And the cell update and URA update cannot be realized across the RNCs by using the prior art, in the case where there is no Iur signaling link between the SRNC and the destination RNC.

One objective of the present invention is thus to solve the problem of how to perform cell update and URA update across the RNCs when there is no Iur signaling link between the SRNC and the destination RNC.

The present invention solves this problem by adding a new RANAP message “forward uplink RRC Signaling message.” According to present invention, acutely as defined by independent claims 1 and 8, a method and system are provided for cell update and URA update when there is no Iur signaling link between serving RNC and destination RNC, comprising: the UE transmitting uplink an RRC signaling message to a first RNC so as to request UE mobility management; determining whether there exists Iur transport link between said first RNC and said second RNC; said first RNC receiving and forwarding to the core network said uplink RRC signaling message; the core network forwarding transparently to a second RNC said uplink RRC signaling message; and the second RNC receiving and utilizing the forwarded uplink RRC signaling message to perform the requested mobility management.

Ahmavaara ‘933 relates to relocation of a protocol termination point in a communication system. In particular, Ahmavaara ‘933 relates to the problems caused by different protocols used for the communication networks when performing relocating a protocol terminal point.

Ahmavaara '933 is silent to cell update or URA update when there is no Iur signaling link between a serving RNC and a destination RNC.

Sarkinen et al. '533 discloses a method of apparatus for keeping track of UE locations without regard to an existing RRC connection for multicast services in a RAN. Sarkinen et al. '933 does not relate to cell update or URA updates when there is no Iur signaling link between a serving RNC and a destination RNC.

Laiho et al. '251 discloses a method and system for performing a SRNS relocation for a given UE in a UMTS network between a UMTS radio network and a UMTS core network. Reference 3 specifically does not relate to cell update or URA update when there is no Iur signaling link between a serving RNC and a destination RNC.

The primary difference between the present invention and prior art is that the present invention performs cell update or URA update when there is no Iur signaling link between a serving RNC and a destination RNC.

The technical effects of this distinct difference of the present invention over cited prior art is that, in one hand, the cell update and URA update processes across the RNCs can be realized when the Iur link does not exist, and in the other hand, when the invention to realize the cell update and URA update processes, thereby improving system reliability.

In conclusion, the prior art, alone or in combination, do not give the person skilled in the art any indication or hint the objective technical problem could be solved in the way it has been done in the present invention. Independent claims 1 and 8 are thus inventive in view of the prior art cited, taken in any combination.

Applicants believe that no fee is required for this submission. However, should a fee be due, please charge such fee to Deposit Account No. 50-0548.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Matthew Stavish", is written over a horizontal line.

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